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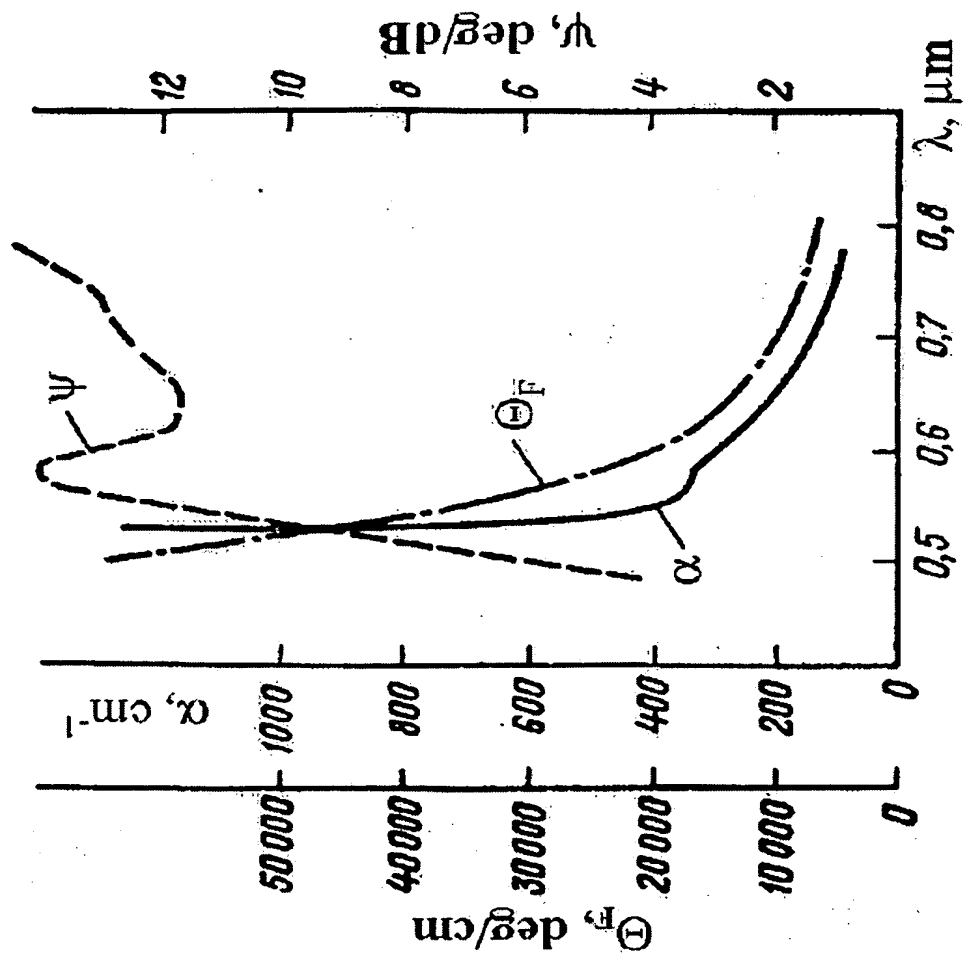
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Θ_F - Faraday rotation;

α - absorption;

$\psi = \Theta_F/\alpha$ - merit.

Figure 1. Dependence of Faraday rotation angle and absorption on wavelength

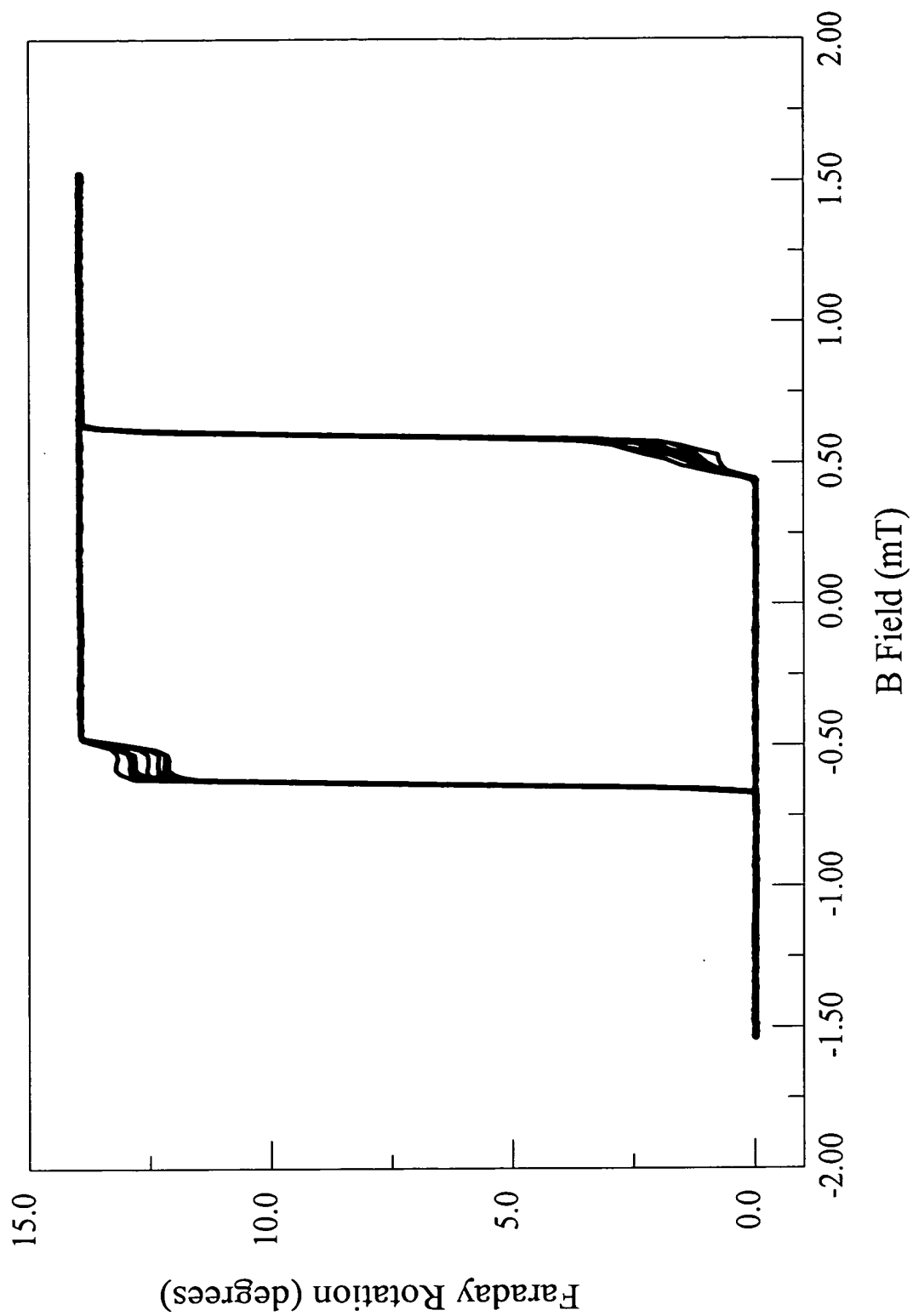


Figure 2. Magneto-optical hysteresis curve measured for YIG film at 10 Hz

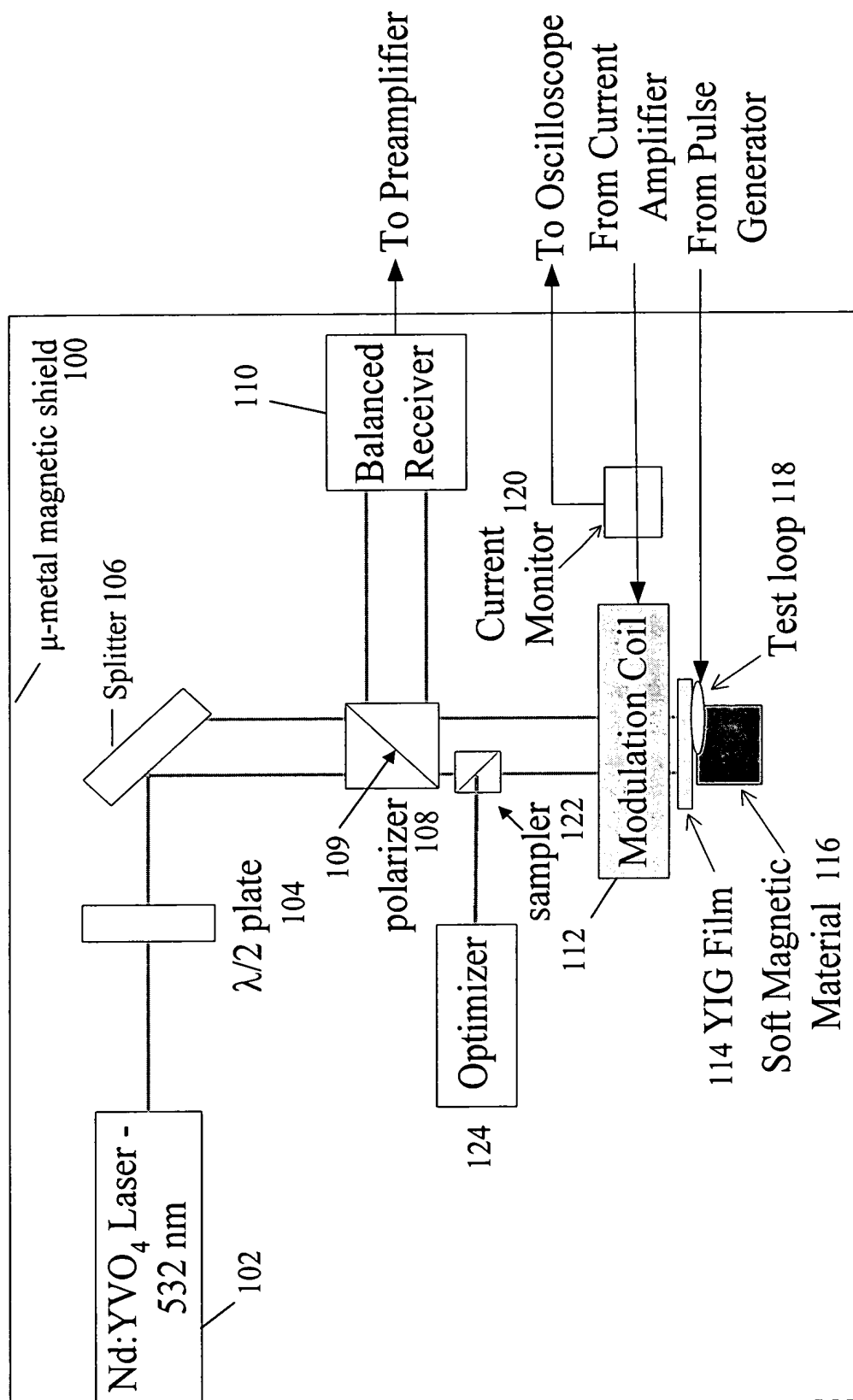


Figure 3. Experimental setup for magnetic field detection

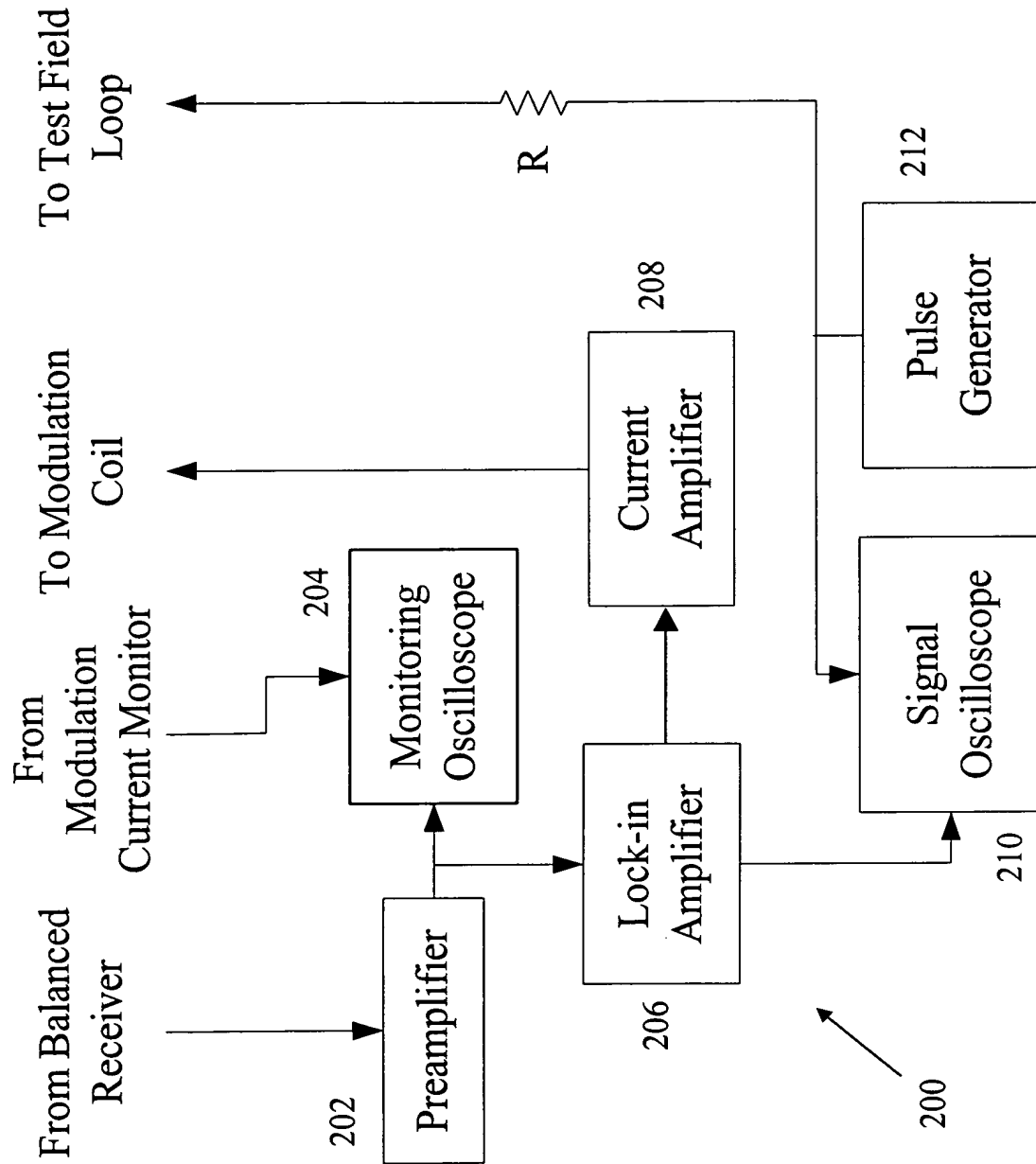


Figure 4. Electronic source and processing layout

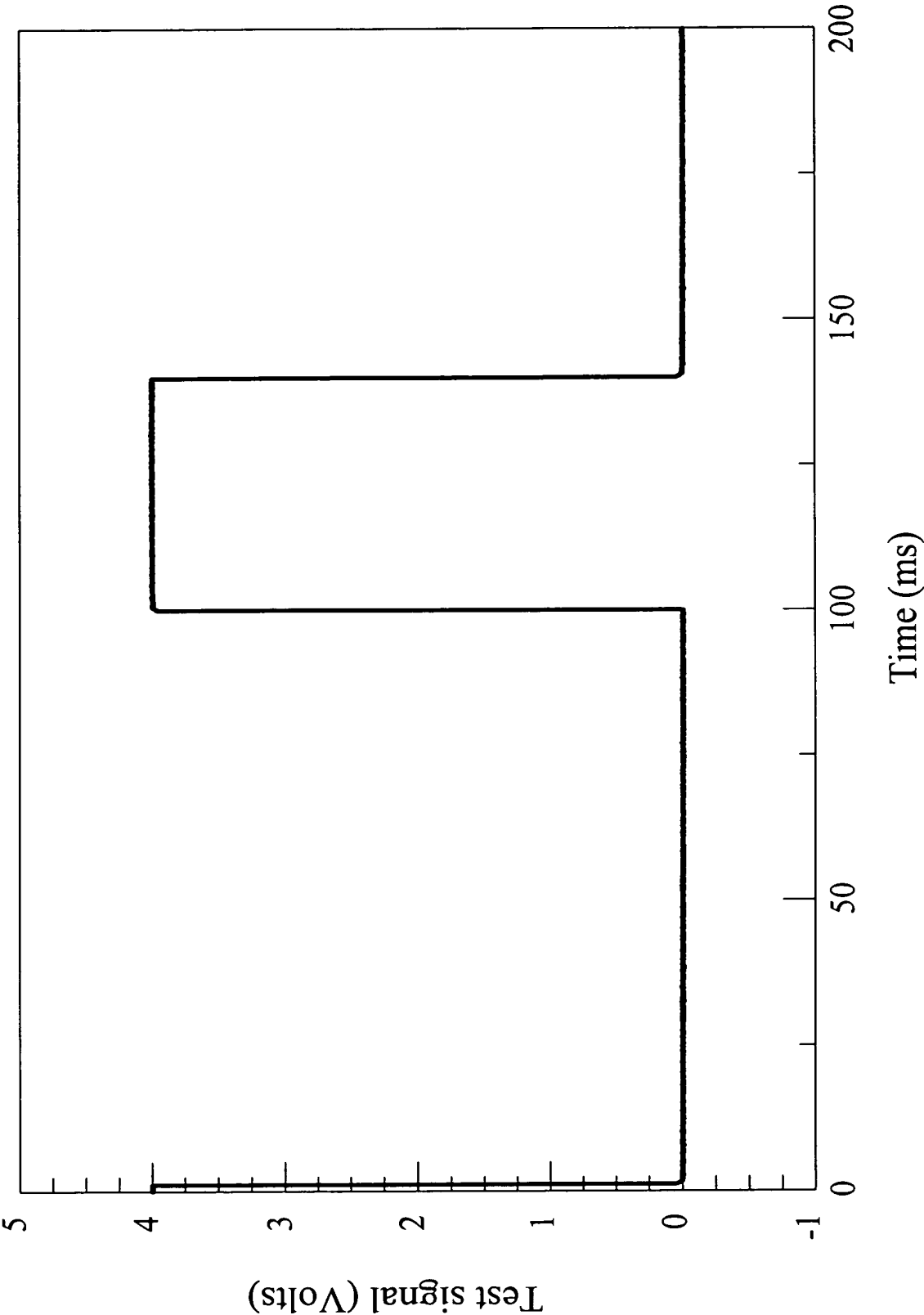


Figure 5. Output voltage waveform sent to test circuit

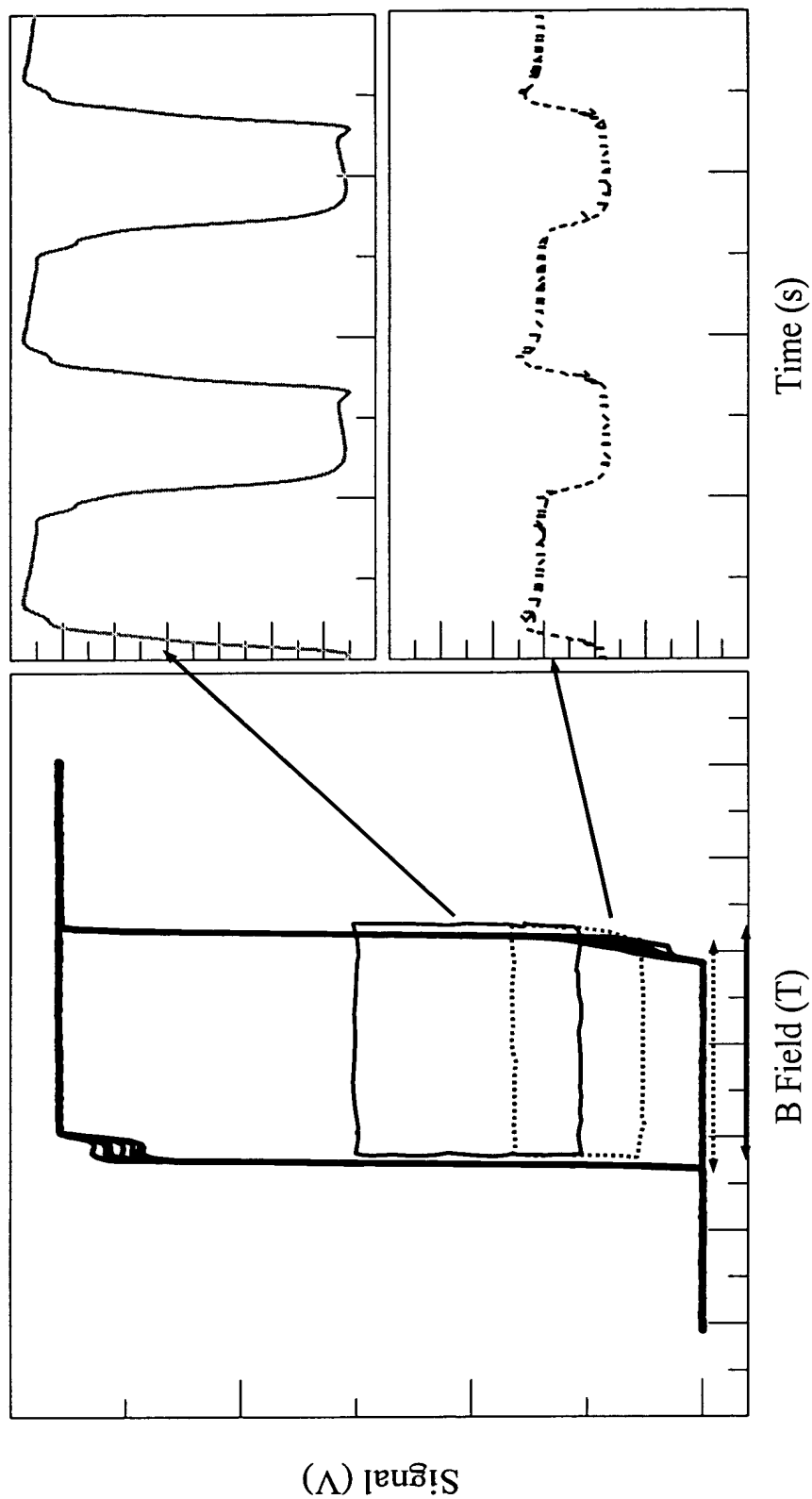


Figure 6. Illustration of how a DC shift (from solid to dotted arrow range) in the magnetic field causes an AC amplitude variation in the optical signal

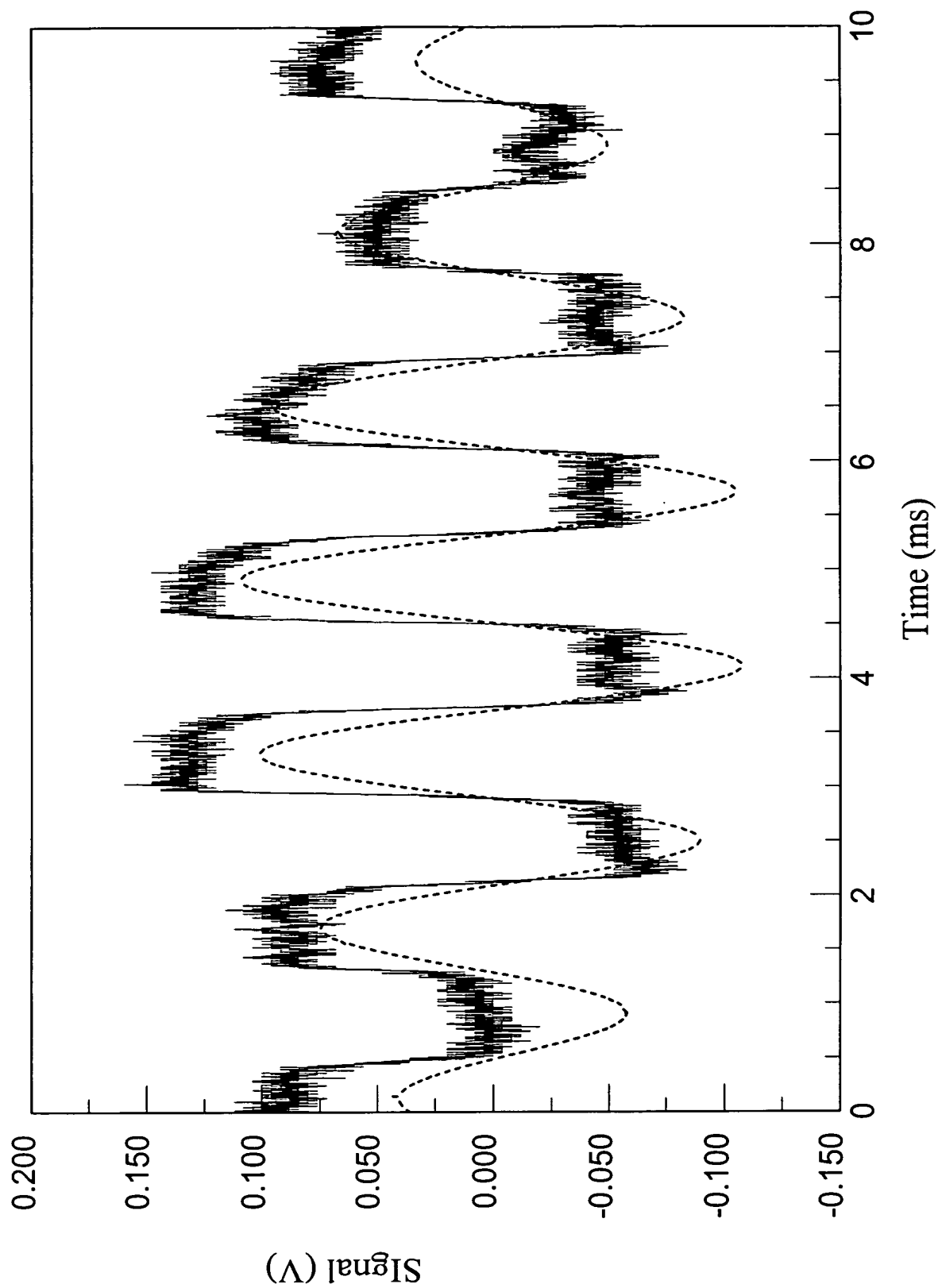


Figure 7. Unfiltered (solid) and filtered (dotted) signal waveforms

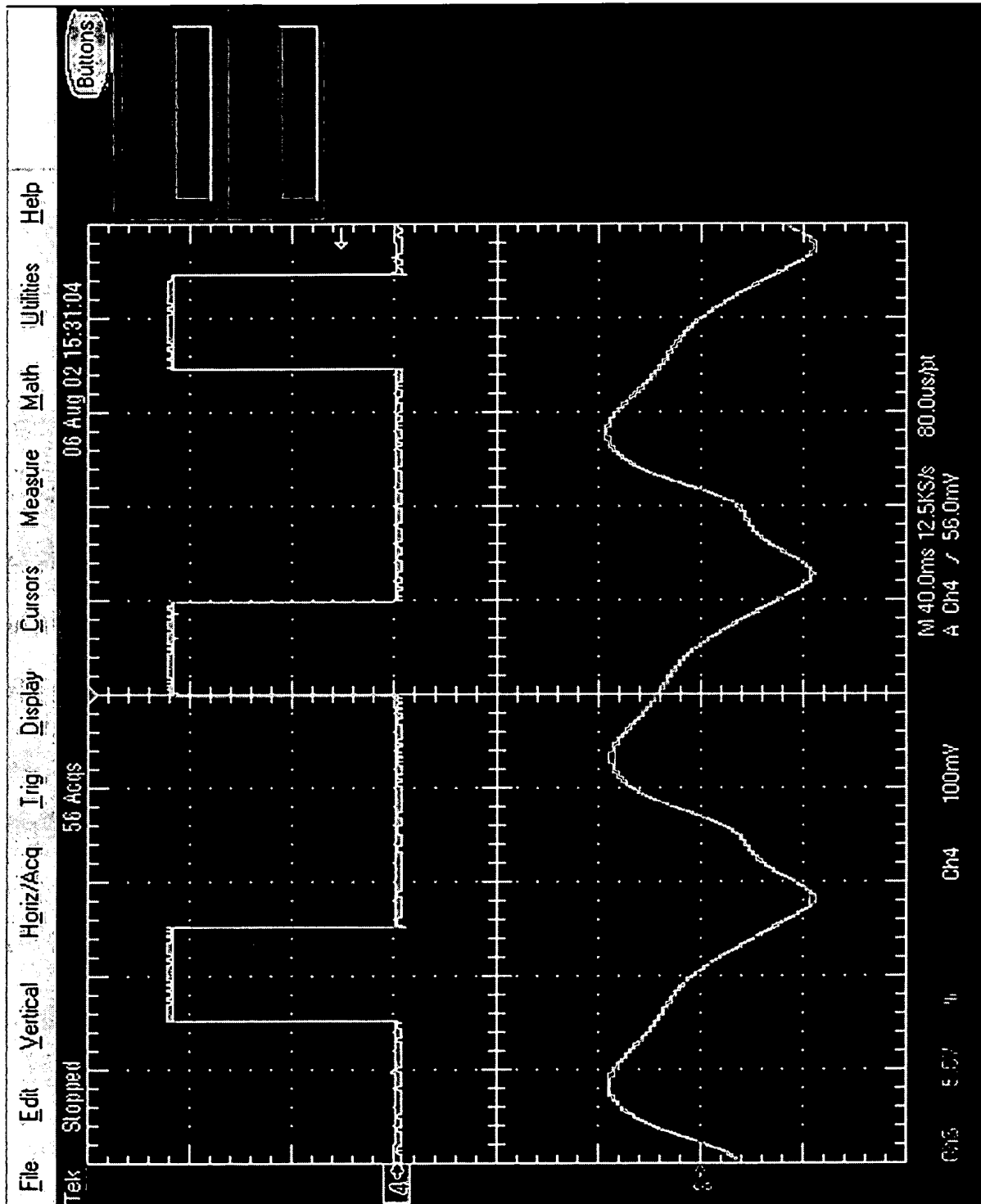


Figure 8. Screen capture of test voltage and detected signal waveforms

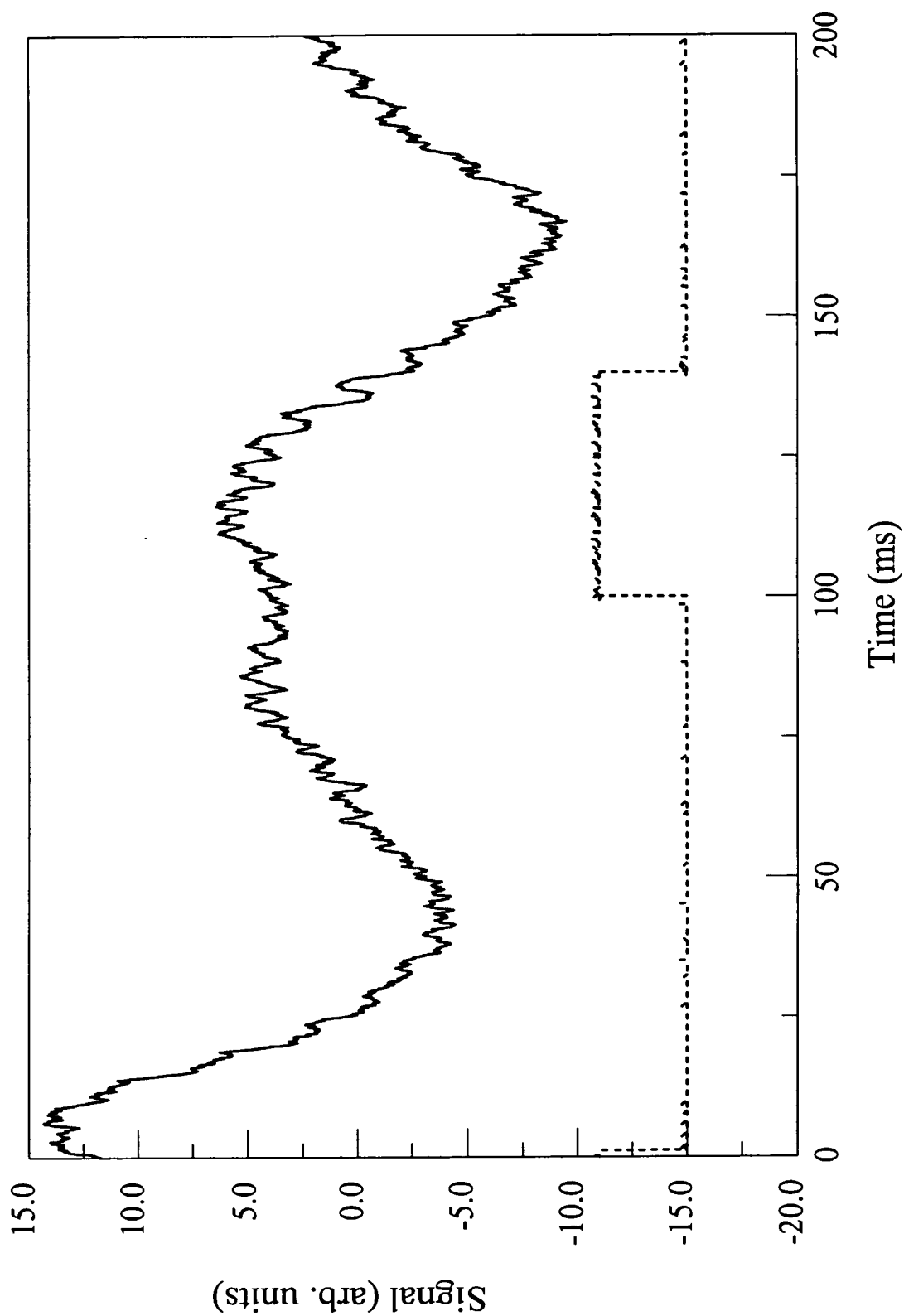


Figure 9. Test voltage (dotted) and detected signal (solid) for a test field of 103 pT

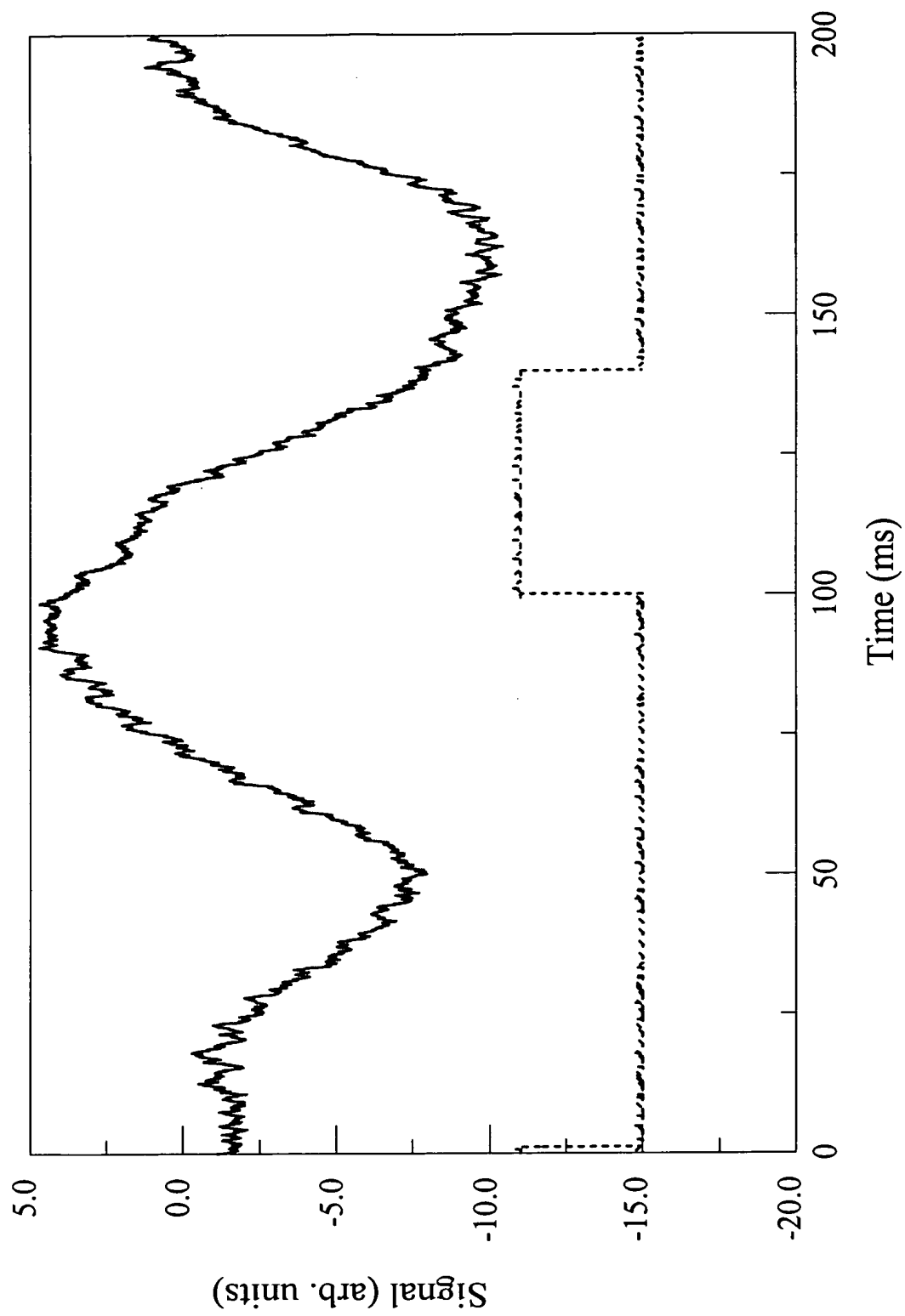


Figure 10. Test voltage (dotted) and detected signal (solid) for a test field of 8.4 pT

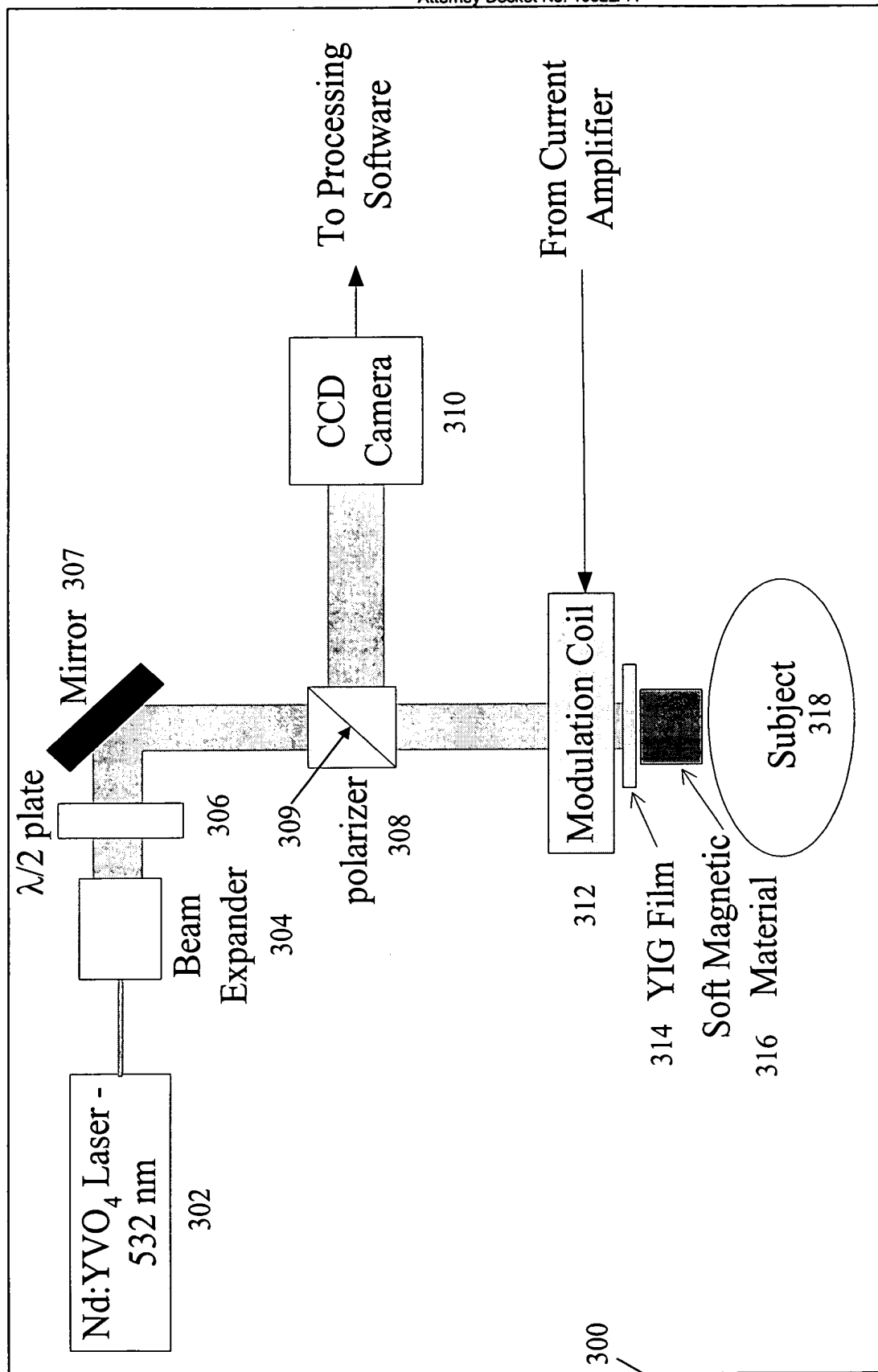


Figure 11. Imaging arrangement according to the second embodiment

Figure 12. Imaging arrangement according to the third embodiment

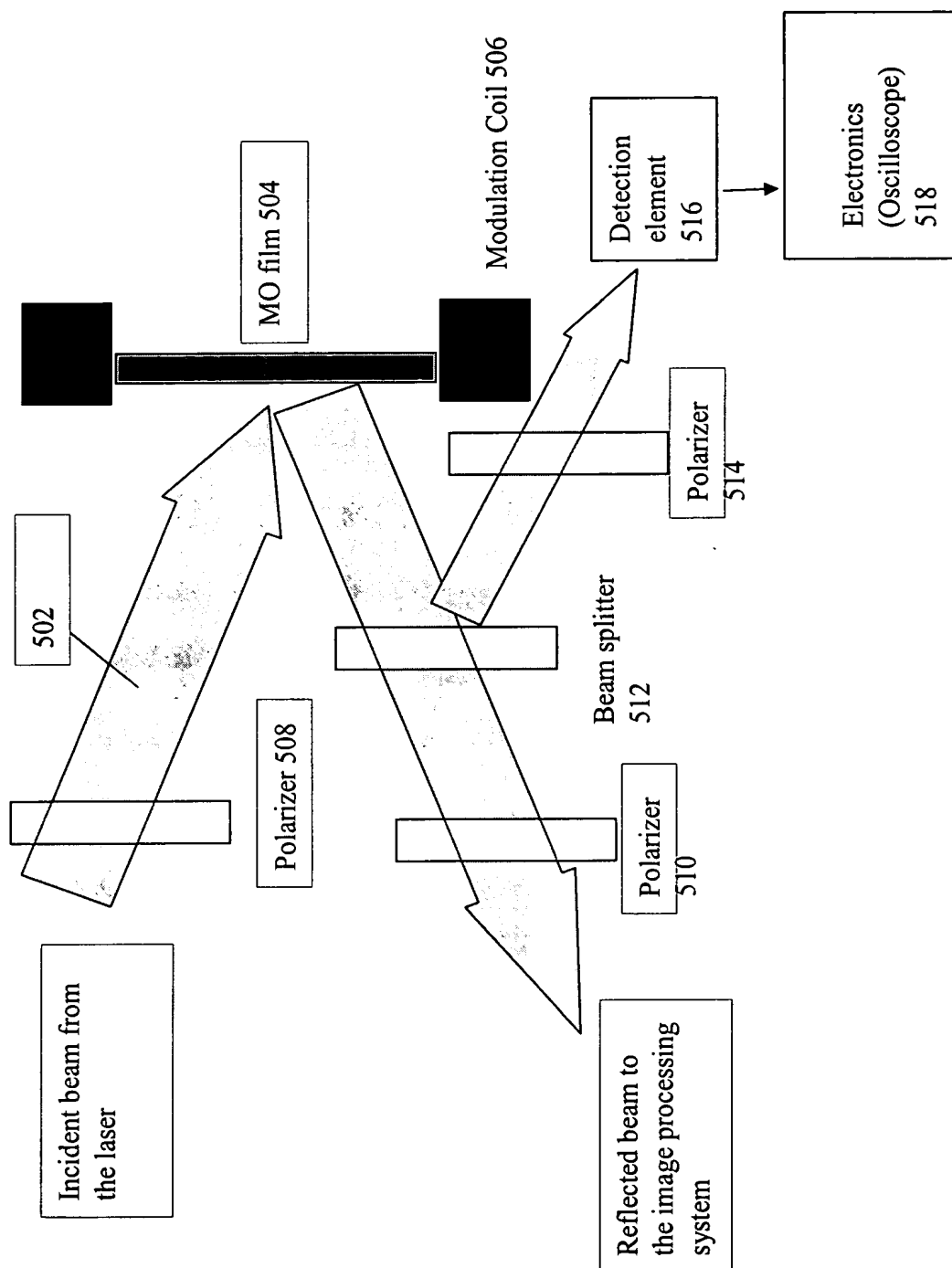


Figure 13. Diagram of optimization sub-system